Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) ~~A~~ An in-line screening capture device for in-line screening of blood collected from a donor using a collection needle connected by a collection duct to a collection bag, comprising:

an inlet for blood collected from the collection needle;

a biochip unit that captures target agents or molecules from the blood; and

an outlet that drains the blood from the in-line screening capture device to the collection duct,

wherein chambers of the in-line screening capture device through which the blood flows have a cross-sectional area that is no smaller than that of the collection duct.

2. (Currently Amended) The in-line screening capture device according to claim 1, wherein the inlet of the in-line screening capture device is directly connected to a rear end of the collection needle.

3. (Currently Amended) The in-line screening capture device according to claim 1, wherein the inlet of the in-line screening capture device is connected, via a collection duct, proximate to the collection needle.

4. (Currently Amended) The in-line screening capture device according to claim 3, wherein the inlet of the in-line screening capture device is connected, via a collection duct, proximate to the collection needle so that the temperature of the blood in the in-line screening capture device is approximately 37° degree C.

5. (Currently Amended) The in-line screening capture device according to claim 1, wherein the biochip unit comprises a first biochip and a second biochip that are sequentially arranged between the inlet and the outlet.

6. (Currently Amended) The in-line screening capture device according to claim ~~1~~ 5, wherein the first biochip and second biochip are arranged in a parallel stacked fashion.

7. (Currently Amended) The in-line screening capture device according to claim 1, wherein the dimensions of the in-line screening capture device are such that a flow rate of blood flowing through the in-line screening capture device is equal to the flow rate of the collected blood in the absence of the in-line screening capture device.

8. (Currently Amended) The in-line screening capture device according to claim 1, wherein the dimensions of the in-line screening capture device are such that the flow rate of blood flowing through the in-line screening capture device is about 450 ml per 10 minutes.

9. (Currently Amended) The in-line screening capture device according to claim ~~7~~ 1, wherein the dimensions of the inlet, the outlet, a surface area of biochips in the biochip unit, and the in-line screening capture device case are such that the collected blood maintains a constant flow rate through the in-line screening capture device.

10. (Currently Amended) The in-line screening capture device according to claim 1, wherein the target agent or molecule comprises at least one protein, nucleic acid molecule ~~or molecule~~ or fragment thereof indicative of or specific for a disease in a subject or an infectious agent.

11. (Currently Amended) The in-line screening capture device according to claim 10, wherein the protein is an antibody or an antigen.

12. (Currently Amended) The in-line screening capture device according to claim 5, wherein the first biochip is a nucleic acid amplification technique (NAT) biochip designed to run multiple tests on the first chip.

13. (Currently Amended) The in-line screening capture device according to claim 12, wherein the first biochip captures at least one infectious organism or cell containing a targeted nucleic acid molecule.

14. (Currently Amended) The in-line screening capture device according to claim 13, wherein the infectious organism is a virus, bacteria, fungi, protozoan, mycoplasma or prion and said cell is a cell from the donor of the blood sample.

15. (Currently Amended) The in-line screening capture device according to claim 5, wherein the second biochip is an immunoassay chip designed to run multiple assays on the second biochip.

16. (Currently Amended) The in-line screening capture device according to claim 15, wherein the second biochip captures targeted antigens ~~and~~ or antibodies or a combination of targeted antigens and antibodies.

17. (Currently Amended) The in-line screening capture device according to claim 5, wherein the first and second biochips are low density biochips.

18. (Currently Amended) The in-line screening capture device according to claim 5, wherein the first and second biochips comprise microarrays in which the analytes that bind to the target agent or molecule, if present in the blood, are arranged along the length of the biochips in the direction of blood flow over the first and second biochips, respectively.

19. (Currently Amended) The in-line screening capture device according to claim 16, wherein the first and second biochips comprise covalently attached analytes.

20. (Currently Amended) The in-line screening capture device according to claim 1, wherein the outlet includes a funnel and a filter.

21. (Currently Amended) The in-line screening capture device according to claim 1, further comprising an anti-backflow device that prevents the blood from flowing back towards the inlet.

22. (Currently Amended) The in-line screening capture device according to claim 1, wherein the inlet and outlet are capable of being sealed when the screening capture device is removed from the collection needle and the collection duct.

23. (Currently Amended) The in-line screening capture device according to claim 5, wherein the in-line screening capture device comprises a lid that can be robotically removed to facilitate robotic removal of the first biochip and the second biochip.

24. (Currently Amended) ~~A~~ An in-line screening system for in-line screening of blood collected from a donor using a collection needle connected by a collection duct to a collection bag, comprising:

~~a~~ an in-line screening capture device ~~for in-line attachment between the collection needle and the collection duct, the screening capture device~~ comprising:

an inlet for blood collected from the collection needle;

a biochip unit that captures target agents or molecules from the blood; and

an outlet that drains the blood from the in-line screening capture device to the collection duct,

wherein chambers of the in-line screening capture device through which the blood flows have a cross-sectional area that is no smaller than that of the collection duct; and

at least one biochip processor for detecting at least one captured target agent or molecule.

25. (Currently Amended) The in-line screening system of claim 24, wherein said biochip ~~process~~ processor is capable of amplifying said target agent or molecule.

26. (Currently Amended) The in-line screening system according to claim 24, wherein the biochip processor is a sealed disposable unit having a nucleic acid amplification technique (NAT) portion for processing a first biochip and an immunoassay portion for processing a second biochip.

27. (Currently Amended) The in-line screening system according to claim 26, wherein said target molecule is a nucleic acid molecule and the NAT portion comprises:

a biochip holder;

at least one reservoir for holding a sample;

at least one amplification reaction chamber connected to the reservoir; and

at least one detection component connected to the amplification reaction chamber.

28. (Currently Amended) The in-line screening system according to claim 27, wherein the NAT portion further comprises:

at least one reagent container connected to the reservoir; and

at least one reagent container connected to the reaction chamber.

29. (Currently Amended) The in-line screening system according to claim 28, wherein the NAT portion further comprises[[:]] the first biochip held in the biochip holder.

30. (Currently Amended) The in-line screening system according to claim 29, wherein the first biochip is held such that a surface containing analytes is in contact with at least one elution and lysing buffer.

31. (Currently Amended) The in-line screening system according to claim 28, wherein the detection component is at least one microfluidity chamber.

32. (Currently Amended) The in-line screening system according to claim 24, comprising more than one biochip processor[[s]].

33. (Currently Amended) The in-line screening system according to claim 26, wherein the target molecule is a target antibody or a target antigen and the immunoassay portion comprises:

a biochip holder;

at least one reservoir for holding a sample;

at least one reaction chamber connected to the reservoir; and

at least one detection component connected to the reaction chamber.

34. (Currently Amended) The in-line screening system according to claim 33, wherein the immunoassay portion further comprises:

at least one reagent container connected to the reservoir; and

at least one reagent container connected to the reaction chamber.

35. (Currently Amended) The in-line screening system according to claim 34, wherein the immunoassay portion further comprises[[:]] the second biochip held in the biochip holder, and wherein the second biochip is covalently attached to analytes that bind to the target antibody or the target antigen.

36. (Currently Amended) The in-line screening system according to claim 35, wherein the second biochip is held such that the attached analytes are in contact with at least one buffer.

37. (Currently Amended) The in-line screening system according to claim 33, wherein the detection component is at least one microfluidity chamber.

38. (Currently Amended) The in-line screening system according to claim 33, comprising at least two reaction chambers, one for the detection of a target antibody and one for the detection of a target antigen.

39. (Currently Amended) The in-line screening system according to claim 38, wherein each reaction chamber is connected to at least one detection component comprising ~~is~~ at least one microfluidity chamber.

40-55. (Withdrawn)